

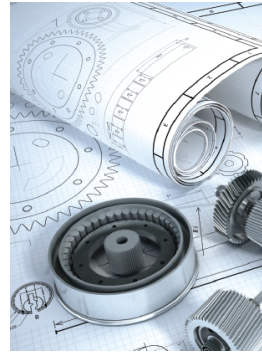
*"The InnovateMEP Center at MSU-CAVS Extension and SEC have worked very well together in the past and we were very satisfied with the outcome of this project, so much so that we have asked them to help us in a different industry and product. We are very confident they will once again improve our operations." Mike McGuffie, Chief Operations Officer*

### Facility Expansion Makes Room for Growth

**ABOUT.** Systems Electro Coating (SEC) is a Tier 1 supplier of electrocoated frames and other vehicle components for Nissan North America's automotive manufacturing plant in Canton, Mississippi. A joint venture between Systems Consultants Associates, Inc. and PPG Industries, Inc., SEC employs 60 people at its 99,000-square foot facility. Since opening in 2003, the limited liability company has rapidly become a proven leader in quality electrocoating and related value-added services, with a customer base that spans numerous automotive and industrial companies.

**THE CHALLENGE.** SEC needed more staging room to accommodate the number of vehicle frames moving through the facility to be coated. The Nissan Canton plant produces the Titan, Frontier, Xterra and NV series of Light Commercial Vehicles, and each of these come in several variations: two wheel drive, four wheel drive, long wheel base, short wheel base, king cab, crew cab, etc. Nissan plans to add many more variations as it updates these vehicles. SEC had to have a staging point for every single variation and had to accommodate a unique number of each variation based on production forecasts. Having worked with the InnovateMEP Mississippi Center in the past, SEC contacted the NIST MEP affiliate for assistance in expanding the facility according to the company's space and storage requirements.

**MEP'S ROLE.** A team comprised of the chief operations officer, plant manager, and plant engineer from SEC, along with an InnovateMEP Mississippi Center engineer from Mississippi State University's Center for Advanced Vehicular Systems Extension (CAVS-E), developed plans for several scenarios to ensure that the proposed plant expansion could handle the increase in storage capacity. After coating the frames, SEC places them in storage at the end of the line, loading them in sequence from the storage conveyors before delivering them to the Nissan plant. Using forecasting data and frame dimensions provided by Nissan, the team laid out the new facility with proper quantities of all frames and with necessary space for fork truck traffic. SEC's substantial investment in plant equipment, information systems, and workforce practices led to new jobs and cost savings.



## RESULTS



Created **16** new jobs



**\$4.2M** investment in plant equipment



Invested in **\$200,000** in information systems and workforce practices



**\$100,000** cost savings

## NEXT STEPS

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